

Application No. 10/534,747  
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REMARKS/ARGUMENTS

The Official Action states that the response filed June 25, 2007 introduced new matter in the disclosure. In particular, the Examiner argues that the statement "Furthermore, the troughs 13 have a fixed relationship with the vacuum channels 45 shown in the Figures." as well as the sentence "with this arrangement the interchangeable face attachments do not affect the relationship of the vacuum channels to the integral troughs" are not supported by the application as originally filed.

It is clear from the drawings and the specification that the troughs are integral with the mold blocks. Furthermore, it is stated that the vacuum channels were provided in the mold blocks. The disclosure of the application page 6 lines 28 to 31 states "The interchangeability of the face attachments at the mounting surfaces 12 of the mold block sections in no way impedes or affects either the vacuum or the cooling channels." Note that page 6 lines 23 through 28 clarify that "the mold block sections include sophisticated vacuum and cooling channels required to first shape and then cool the plastic at the faces of the mold blocks."

It is clear from the above passages as well as the drawings that the crest forming parts that are separable from the mold blocks in no way affect the vacuum or cooling channels provided in the mold block sections. The mold blocks are cast and machined blocks with the various channels provided therein. The vacuum channels and the troughs are formed in the mold blocks as shown in the drawings. The relative position of these components is therefore fixed.

The specification and drawings as originally submitted provide support for these amendments, particularly in that the specification acknowledges that vacuum and cooling

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channels are commonly used in these systems. An example of such vacuum channels is shown in Applicant's earlier United States patent 6,089,851, as well as some of the references currently cited by the Examiner.

Vacuum channels provided in the mold block and connected to vacuum slits provided in troughs of integral mold blocks is well known. If the Examiner requires additional references to establish this relationship, further references will be cited. It is therefore respectfully submitted that the portions of paragraph 26.1 objected to by the Examiner as directed to new matter are indeed supported by the application as originally filed.

With respect to paragraph 26.3, the Examiner raises objections with respect to the description of the bracket 16 having the particular faces clearly shown in the sectional view of Figure 6. It is also clear that tightening of the bolt 41 will clearly cause a camming action due to engagement of faces 67 and 69 and draw the crest forming parts into engagement with the mold blocks. The mold block section is provided with a recess 10 for receiving the leg 39 of the bracket 35. Similar recess 16 is provided in the face attachment 15 to receive the leg 37 of the bracket 35. The portion objected to by the Examiner is clearly shown in the drawings and it would be apparent to a person skilled in the art that tightening of bolt 41 will cause the drawing of the face attachment to the mold block. Reconsideration of this rejection is requested.

Regarding the designation of 45 as a vacuum channel, the disclosure clearly says that vacuum and cooling channels are provided in the mold block. The drawing clearly shows large port channels and these are closely associated with the troughs. To merely identify these as vacuum channels does not add subject matter to the application. This position is further reinforced by the fact that vacuum and cooling

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channels are known with respect to integral mold blocks and vacuum channels commonly connect to vacuum slits provided in the troughs.

For the reasons stated above, reconsideration of the objection to the drawings as entering new matter is also requested. Given that the applicant has merely provided identification elements to the structure shown in the drawings as originally filed, it is believed a person skilled in the art would acknowledge that no new matter has been entered. Certainly, the labeling of the structure previously shown cannot be considered to be new matter. Reconsideration of this rejection is requested.

Claim 30 has been objected to as containing new matter. In particular, the Examiner states that each bracket cooperating with the recess in the respective crest forming part and the recess in the mold block to abut the crest forming part and said crest mounting portion as the bolt moves said bracket to an engaged position is considered new matter. Given the cross-sectional view of Figure 6, it is clear that the structure would operate in this manner and it is further clear that it would operate in this manner given the large slot provided in the mounting bracket. If it was desired for the bracket to precisely locate the crest forming parts, there would be a single port for receiving of the bolt precisely sized to locate the crest forming part by a predetermined relationship with a bracket. This is clearly not the case shown as shown in Figures 4, 5 and 6. Reconsideration of the rejection of the claims under 35 U.S.C. 112 is requested.

Claim 36 has been amended to overcome the objection and is made dependent upon claim 35.

Claims 29, 30, and 32 through 34 were rejected as being obvious over German reference DE 200 09 030 U 1, in view of Chittenden et. al. United States Patent 3,380,121, and

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Lupke et. al. United States Patent 6,155,813. As noted by the Examiner, the German reference does not disclose the troughs being formed in and integral with the mold block, recesses, mounting bracket arrangements, or first and second cooling plugs as disclosed by the instant claims. This reference also does not disclose radial separation of the crest forming parts.

The secondary reference, United States Patent 3,380,121, discloses an insert sleeve designed to modify the surface configuration of a product being blow-molded. It is noted in the specification that it is an object of the invention to provide a mold whose interior configuration and design may be changed without re-machining the mold, column 1 lines 51 through 53.

Another object is the provision of a mold whose cost is significantly lower than conventional machine molds. Reference is also made to column 1 of the reference lines 20 through 25 where it states "The present invention relates to a mold construction and has particular reference to a mold having replaceable inserts which can change the shape, size and design of the article being molded by merely replacing inexpensive inserts that form part of the wall of the interior cavity of the mold." These are clearly inserts for modifying the surface configuration of the product and are not designed to extend into the mold to vary structural characteristics of the mold as required in the pipe molding process of the present invention and the other cited pipe forming prior art. It is respectfully submitted that blow molding of individual product containers contained within a closed cavity, as clearly found in United States Patent 3,380,121 is indeed remote pipe extrusion equipment, and furthermore this reference is really directed to thin liners for providing changes in the cosmetic appearance of a product. A person skilled in the art would not use the insert liners of this reference in a pipe extrusion application. Furthermore, it is

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noted that basically the insert portions of this reference replace the entire interior surface of the mold cavity with the exception of the end configurations. Therefore, if a person was to consider using such inserts, they would replace the entire interior surface configuration of the extruded pipe mold block by mold block which is in direct contradiction to the integral troughs as required in the present application. There is certainly no distinction in the reference of replacing only a portion of the mold while leaving an integral trough for forming of pipe. It is only based on hindsight and with knowledge of the present application, one would ever consider this reference in an attempt to arrive at the claimed invention. Such hindsight analysis of the prior art and the mere selection of components of prior art without reference to the overall teaching of the reference, is not the appropriate test of obviousness.

United States Patent 3,380,121 is also cited in that it includes securing flanges that extend outwardly from the insert mold and can be dropped into the mold cavity. The Examiner then states that this arrangement could be combined with the primary German reference. This position is respectfully traversed. If one was to use this type of securing flange with the dovetail arrangement of the German reference for holding of a crest forming part in the mold block, it would not be possible to either insert or remove the crest forming part of the mold block. The outwardly extending flanges would prevent insertion of the crest forming part in the mold block as the flange would effectively block the dovetail cavity. If one was to delete the dovetail cavity in direct contradiction to the cited reference, the claimed combination would not have the inter-engagement of the crest forming part and the shoulder recess inter-engagement of the crest forming part as required in the present claims. It is therefore submitted that the primary reference and the secondary reference are incompatible.

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The Examiner further cites Lupke et. al. with respect to cooling plugs. Once again, there is certainly no teaching in any of the references of using this arrangement in combination with the interchangeable inserts of the mold block as specified in the present case. The only disclosure of this particular combination is found in the present application.

In attempting to provide a rationale for not including replaceable troughs of the German reference, which are clearly required to provide versatility as considered by the inventor, the Examiner cites Larson. It is then argued that according to Larson, a person skilled in the art would make a one piece construction instead of a separable construction. If this person skilled in the art made a one piece construction, they would end up with an integral mold block having the integral troughs and the integral crest forming parts. This is clearly the one piece construction that the Larson principle would result in. Alternatively a full insert with both troughs and crests similar to United States Patent 3,380,121 would be suggested. Once again, there is no reason to merely select one component of the mold block i.e. the trough and argue that it should be integral when other components are specifically not included in this analysis. Furthermore, the primary reference teaches away from this arrangement.

In view of the above, reconsideration and allowance of the application is requested.

Respectfully submitted,

  
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